

JP2000187327 A

**POSITIVE PHOTORESIST COMPOSITION FOR
FAR ULTRAVIOLET EXPOSURE**

FUJI PHOTO FILM CO LTD

Priority: JP1998327056A 19981117; JP1998293986A 19981015

Application No.: JP1998327056A; **Filed** 19981117; **Published** 20000704

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Abstract:

PROBLEM TO BE SOLVED: To obtain a positive photoresist composition solved in the problem of defects at the time of developing and having excellent sensitivity to short wavelength light source by using a specific acid degradable resin and a specific additive.

SOLUTION: The positive photoresist composition for far ultraviolet exposure contains a compound generating an acid by the irradiation with active light or radiation, a resin containing an alkali soluble group protected by at least one of a partial structure containing an alicyclic hydrocarbon expressed by formulas I-VI and capable of degrading with the acid to increase the solubility to an alkali and a low molecular compound having a hydrophilic functional group and the alicyclic hydrocarbon group or a naphthalene compound having a hydrophilic functional group. In the formula, R11 expresses methyl group, ethyl group or the like; Z expresses an atomic group forming the alicyclic hydrocarbon group with carbon atom. Each of R12-R25 is independently a 1-4C linear or branched alkyl group or alicyclic hydrocarbon group.